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THE BRICKBUILDER.

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ADVERTISING.

Advertisers are classified and arranged in the following order:

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Advertisements will be printed on cover pages only.

TESTS OF FIRE-PROOFING MATERIALS.

MR. EDWARD ATKINSON, the president of the Boston Manufacturers' Mutual Fire Insurance Company, who has been very thoroughly identified with the improvements in mill construction tending to reduce the fire hazard, has begun a series of investigations of the various so-called fire-proofing materials mainly devised for the protection of steel from heat. Such investigations are by no means new, but on the contrary have been pursued with the utmost care during the past decade in this country, with results which already have been published very fully from time to time in the columns of THE BRICKBUILDER, and the architect who is well posted and abreast of the times has very little difficulty in getting at a mass of data from which he can make an intelligent and scientific selection of fire-proofing materials. The only difficulty is in distinguishing between what is *bona fide* evidence and what is the result of advertising expediency. If we were to take the word of all the circulars which we find traveling around the country, there are at least ten distinct systems of fire-proofing now in vogue, each of which is claimed by its business backers to be absolutely the best;

and furthermore each system has the indorsement, more or less ample, of the building inspectors in the various large cities. THE BRICKBUILDER has never expressed the slightest doubt as to what was the most suitable material for the protection of steel against the action of fire, and our conviction in favor of brick and burnt clay in various forms has been indorsed most unqualifiedly by the majority of the tests which have been conducted simply with a view to determining relative efficiency. We feel confident that Mr. Atkinson will approach the subject in his original way, and, viewing the facts as he will from the insurance interests, his conclusions are sure to be of value. In his circular he calls attention to the fact that in Great Britain it is said to have been proved that many of the concretes, some of which are there called breeze and of which coal ashes are the principal material, are very destructive to iron and steel. These ashes come from coals containing a good deal of material which may cause corrosion, and the long-continued contact even of dry ashes with iron and steel beams where thin plates are imbedded in them is said to cause oxidization. We have heard of one instance in which a building was fire-proofed with coke breeze concrete mixed, however, with so little cement that the construction actually took fire and burned as a result of an upset stove on one of the floors. There have been some forms of fire-proofing in which even coal dust was used, a material which would certainly be anything but fire-resisting.

Many investigations and reports have been made on the subject by representatives of special methods, but Mr. Atkinson states that he is not informed of any general report or conduct of tests corresponding to those now being made by the electricians and engineers who have organized the Fire Prevention Association of Great Britain.

PUBLIC ART SPIRIT.

WE are very prone to think of this as a prosaic, commercial age marked by acquisitiveness and material development rather than any popular enthusiasm for the fine arts. Such a characterization might undoubtedly be made with a good deal of truth of the century which has just closed, and while we cannot hope that mere changing from 1800 to 1900 is to mark an entire change of heart on matters of art, it nevertheless seems as though we were now in the midst of a spirit far more appreciative of the finer qualities of civilization and life than the world has seen since the days of the Italian Renaissance. Our cities are still horrible in many respects. Individualism will undoubtedly be rampant the whole length of Broadway for at least another century,

and we can expect neither our postage stamps nor dollar bills to be exactly monuments of decorative art; but on the other hand there are not lacking signs which show at least the intent, and that is certainly half the battle. As our readers are doubtless aware, the United States government some time since appointed a commission consisting of Messrs. C. F. McKim and D. H. Burnham, the well-known architects, and Mr. F. L. Olmsted, the landscape artist, to make a careful study of the artistic possibilities of the city of Washington. The only parallel to this action which we recall at present is that taken by Napoleon III with the aid of Baron Haussman when he transformed Paris and laid out the magnificent system of boulevards which make Paris what it is to-day. But the scheme before the Washington Commission is at once more comprehensive and more interesting. Considered merely in mass and in its relation to its purpose, the United States Capitol has always appealed to us as one of the most magnificent buildings in the world. The city of Washington is superb. Many of its public buildings are marked exceptions to the rule regarding United States government work of the last century, and we know of no more fascinating problem than has been set before the members of this commission. Nor do we know of anything which could be more indicative of the spirit of the age than that the politicians at Washington should appoint a commission of this sort, for it shows not that the politicians themselves appreciate art so much as that the people who are behind the politicians demand that our capital shall be beautiful.

And the twentieth century is in our judgment to be marked by an artistic development in this country such as the world has never seen before. It will not be Roman art; it may be more like the best of the Italian Renaissance. The rewards to the artist to-day are all that one could wish. The great opportunities command great pecuniary profits. Our public spirit will probably never have the keenness of appreciation of the Greeks, but with a broader civic spirit than was ever possible during the Italian Renaissance, with unlimited material wealth at command, and with all the mechanical adjuncts which, while making our modern civilization so complex, also render possible the largest efforts with the least drain upon personal limitations, we ought to see the twentieth century develop very speedily an American art worthy of our fondest dreams.

THE TWENTIETH-CENTURY CITY.

THE American League for Civic Improvement is doing missionary work by its pamphlet recently published, entitled "The Twentieth Century City: a Record of Work Accomplished for Civic Development." This cause is too well known to require extended comment. Its influence has been felt in all the leading cities of the country, and its objects are so thoroughly commendable in every sense that the League needs but be known to be well received. Any one who has been familiar with the aspect of central Illinois and western Indiana during the last ten or fifteen years can appreciate the possibilities of civic improvement which the League tries to foster. Only a few years ago this district of our country was an almost treeless prairie,

broken only by thin fringes of vegetable growth along the river banks. To-day there is hardly a village that has not its avenues of thriving shade trees, and even along the country roads tree planting has been carried to a remarkable extent, with the result of completely changing the aspect of the country. Indianapolis in its abundance of trees is perhaps unequaled anywhere.

Of course tree planting is only one of the objects which the League tries to foster. It makes an earnest plea for better roads, better public buildings, better architecture generally, and in these respects it has been ably seconded by the efforts of the Architectural League in America, which has given earnest support to the movement for civic betterment.

There are about twelve other interesting specimens of old Dutch brickwork which will be presented during this year as frontispieces. The object in continuing this series is to make the collection of this charming old work nearer complete.

APPLIED PERSPECTIVE FOR ARCHITECTS AND PAINTERS.
W. P. P. Longfellow. Boston: Houghton, Mifflin & Co.

It would almost seem that there is hardly demand for a work such as this, since the topic has been treated so thoroughly and exhaustively by others, but Professor Longfellow has approached the subject in a manner which makes it exceedingly interesting, and the work certainly deserves a more extended review than our columns would warrant. The value of the work is greatly enhanced by the character of the problems which are studied. While, in the nature of things, it is inevitable that there should be a certain amount of discussion of truncated pyramids, a cross on three steps, etc., very little space is given to such elementary, almost axiomatic work, and the bulk of the discussion is directed more to real problems in perspective, and actual, well-known buildings and effective portions of buildings are studied, working backwards, as it were, from the photograph to a constructive drawing. This is as it should be. The perspective which does not convey the same impression as a photograph, as far at least as pertains to drawing, is just to that extent false, and Professor Longfellow seems to be able to keep clearly in view all the time the real purpose of perspective drawing, namely, to correctly represent objects. He also presents a very careful analysis of perspective scales, including the introduction of human figures in drawings. As he very truly says, "the practice of perspective depends not so much on many principles as on the varied application of a few." He refers his readers to Professor Ware's "Modern Perspective" for a full, theoretical account of the science, this book being rather an attempt to show what trained draughtsmen actually do in laying out a drawing. The amount of mathematics required for a complete understanding of this subject is really very slight, and any intelligent reader who does not know geometry can find profit in the book and learn what is fundamental in it without unreasonable effort.

This treatise might very fairly be entitled a dissertation upon the art of perspective drawing as understood

and applied by our best draughtsmen and painters, and as illustrated by photographs of actual buildings.

ARCHITECTURAL ENGINEERING, WITH SPECIAL REFERENCE TO HIGH BUILDING CONSTRUCTION. By J. K. Freitag, B. S., C. E. New York: John Wiley & Sons.

This is the second edition of Mr. Freitag's well-known work, but it is so increased in number of pages and illustrations as to constitute practically an original volume. The first edition appeared in 1895, when high building construction found its best development in Chicago. Since then the Chicago methods have spread throughout the country and have been refined into a science which is admirably epitomized in this second edition. Our only criticism would take the form of regret that the author did not entirely discard the original layout and rewrite the whole book, though the interpolations are manifestly obtrusive in only a few places. This volume is a companion to the same author's work on the "Fire-proofing of Steel Buildings" and should be studied in conjunction therewith. Both are admirable in their ways, and in the few years they have been before the public have won a position as being standard. "Architectural Engineering" is, so far as we know, the best treatise which has ever been published upon the subject.

LIGHT, HEAT AND POWER IN BUILDINGS. By Alton B. Adams. New York: William T. Comstock.

The object of this volume is to present in a compact form the main facts on which the selection of sources for light, heat and power should be based. It includes a study of gas, electricity, steam and hot water, as well as the various fuels. The subject-matter is treated in a very clear, concise manner, and in the one hundred and two pages of the volume all of the leading facts pertaining to the subject are set forth in such a manner as to make them readily available for the electrician or the engineer. Mathematical elaborations of mere theory are entirely eliminated, and the solid, available matter is packed so closely that there is no waste space in the volume. It is a work thoroughly to be commended for its purpose.

THE BUILDER'S HANDBOOK. By A. Roberts. Size 4 x 6 1/2 inches; 220 pages. Price \$1, delivered. A. Roberts & Co., Normal, Neb.

A pocket manual of information, facts, figures and memoranda such as a builder needs every day for reference and equally valuable to the owner or any one intending to invest money in building improvements.

The work has been carefully prepared by an architect of large experience who is also a practical mechanic, and is made for common everyday use by practical men. Most of the facts are not new, many of them you will already know, though these may be presented in a new light, but the multitude of facts and formulas required by the builder cannot always be remembered. The most skilled mechanic will find the book invaluable simply as an aid to memory.

Every subject has been treated in the simplest and clearest manner and fully illustrated with original drawings, making it easy to understand.

Colonial Brickwork of New England.

II.

PORTSMOUTH, N. H.

BY WALTER H. KILHAM.

IT is a curious circumstance that the most important factor, that of simplicity, in the only style of architecture which is in any sense indigenous to our country, has never made any distinct impression on the style of



HOUSE AT PORTSMOUTH.

design practiced by later generations of architects. The layman who in response to his directions receives from his architect a square, box-like structure decorated with large pilasters, a deep porch, leaded bay windows, other windows of shapes varying from oval to square and a



HOUSE ON MIDDLE STREET, PORTSMOUTH.

large amount of papier maché garlandry distributed where it will do the most good, and fondly imagines that he is getting the real "Old Colonial," is not more to be blamed than the practitioner who places upon a single



PETTIGREW HOUSE, PORTSMOUTH.

forty-foot front all the decorations that originally grew in an entire city. Both have signally failed to grasp the reason of the charm that each has felt in the presence of the stately mansions which during the eighteenth century were erected in America. That charm is produced not by slender pillar or delicate molding, but first, last and always by the restrained use of one or two good architectural motifs, relieved against a façade otherwise almost entirely plain. Take the illustrations of the old Portsmouth houses which accompany this article. One house



WARNER HOUSE, PORTSMOUTH.

has a Palladian window over a porch as its motif; another has the front all of Palladian windows and no porch; another has a delicate pilaster treatment with perfectly simple windows. Seldom, we think, will be found any redundancy of ornament, any evidence of confusion or doubt in the mind of the designer. Simple, straightforward and direct, after a century of usefulness these charming old buildings stand quietly confounding the strenuous taste of the modern designers who go among them with sketchbook and camera and come away without having seen the simple fact at the bottom of all.

Standing on its rocky promontory, with the whirling tides of the Piscataqua eddying around the foundations of

its weather-beaten brick warehouses the old city of Portsmouth stands as the most picturesque of the ancient New England seaports. It has no such regular and stately vistas of mansions as has Salem, but it replaces them by a no less pleasing irregularity which brings its splendid old houses into the most picturesque of poses.

The best type of Portsmouth house is rather prone to stand on a grassy terrace several feet above the street, from which it is approached by a succession of short flights of stone steps with chain fences at the sides.



TYPE OF DOORWAY, PORTSMOUTH.

The house is high and stately, with much arcaded shed work and stabling at the rear and a large garden enclosed by a tight board fence paneled on the street side, as in the illustration, and with urns on the posts. In the actual style of the houses there is much variety, ranging from the gabled two-story type of the Warner house to the square block of the Paddock or Pierce houses; and a number of motifs are used in the decorative architec-



DETAIL, OLD CUSTOM HOUSE, PORTSMOUTH.



PADDOCK HOUSE, PORTSMOUTH.

ture which from their frequency give the architecture a distinctly local flavor. For example, the Palladian window enclosed by a wide arch enclosing the entire motif and concentric with the arch of the central division occurs in Portsmouth quite generally, but in Salem it is almost wholly absent. Noteworthy examples of this occur in the façade of the Paddock house which we illustrate quite fully. Here the entire fenestration of the front is composed of these Palladian windows, beautifully spaced, which give a remarkably stately air to the elevation. The details are unusually simple, even for Colonial work. The central window space is



PADDOCK HOUSE, PORTSMOUTH.

enclosed by a marble frame. In the second story the side spaces are solidly bricked up. The whole is recessed and enclosed in an eight-inch arch ring set flush with the wall. Though the whole is exceedingly simple, much attention has been given to detail. For example, the central section of the window sill projects beyond the rest, and the proportions of the first story windows differ from those of the second. This establishment offers an interesting study in foliage and the placing of shrubbery, for which reason we show two views, one in winter and one in summer, the latter bringing out the effective shadows and masses of shrubs. The fence and flights of steps leading to the door are interesting.

Good examples of the Palladian windows above referred to are also to be seen in the house on Middle Street next to the old Academy building, and in the building

known as the old Custom House, these latter having the arched space done in white plaster.

Another characteristic motif is the use of pilasters and panels on the façades, as in the case of the Pierce house (built in 1800) and others. This particular house is of wood, but it offers one of the best examples of the style.

Cupolas are common and are generally well designed and elegant.



PIERCE HOUSE, PORTSMOUTH.

The Pettigrew house may be taken as the representative of the type with which we have become familiar at Salem and elsewhere. Like several of the others it stands well back from the street on a raised terrace which seems to give an added dignity.

The stabling of many of the houses is as interesting as the houses themselves. We illustrate the stable and courtyard of the Paddock house, which has almost an old-world air of peace and seclusion. The stables were always given a regularity of design which consorted well with the façades of the mansions they served.

The ornamentation around the doorways has unusual delicacy. One of the best examples is the entrance to the Public Library, known as the old Academy, on Congress Street, built in 1809. The front entrance to the Petti-



COURTYARD OF PADDOCK HOUSE.

grew house on the same street has the same idea developed by bringing the columns forward clear of the wall and allowing the cornice section alone to form the roof of a small porch. The curved pediment is also consid-

erably used, both segmental and broken, as well as the broken triangular pediment.

In the business section of the city other interesting examples of old brickwork are found. The streets which curve along the steep and rocky banks of the Piscataqua are closely lined with blocks of tall warehouses with steep roofs and brick gables built up in steps like those of



OLD BRICK CHURCH, PORTSMOUTH.

Holland, and whose seaward-looking faces have the rich red rust only given by the salt air of the Atlantic. From the old wharves the line of the warehouses as it sweeps out on to Church Point, with the square tower of the old church rising above the massive brick walls which cling to the rocks above the swiftly running tide, forms a composition as surprising and unusual as anything in America, and one which for picturesque outline compares with anything on the coast of Brittany. St. John's Church itself, which crowns the heights, is a good example of early ecclesiastical brickwork and has many interesting points of detail. It dates from 1808. Besides the wind-



THE OLD ACADEMY, OR PUBLIC LIBRARY, PORTSMOUTH.

ing streets of the water front there are several other wide and straight thoroughfares lined with blocks of weather-beaten brick houses, much resembling the old seaports of England.

In this section of the city stands the Warner house, built in 1718, and said to be the oldest brick house in

Portsmouth. Captain Archibald Macphedris, a wealthy merchant and member of the King's Council, was the original owner. As was common at that period, the bricks used in its construction, as well as the hearthstones, tiles, etc., were brought from Holland. Tradition has it that the lightning rods were put up by Benjamin Franklin in person in 1762. The interior is rich in paneling and carving, with wide halls and stately staircases. Some years ago the layers of wall paper which had accumulated on the walls of the lower hall were removed, exposing a remarkable series of pictures of landscapes, Biblical views, etc., painted on the walls by some long-forgotten artist.

Comparatively few of Portsmouth's brick buildings antedate the Revolution, if we accept the authority of General Washington's diary, the veracity of which natu-



ENTRANCE, OLD ACADEMY, PORTSMOUTH.

rally cannot be questioned. On his visit to Portsmouth in 1789 he was apparently not much impressed with the architectural achievements of the place, for he wrote: "There are some good houses, among which Colonel Langdon's may be esteemed the first, but in general they are indifferent and almost entirely of wood. On my wondering at this, as the country is full of stone and good clay for bricks, I was told that on account of fogs and damp they deemed them wholesomer, and for that reason preferred wood buildings." This ingenious excuse given by the citizens of Portsmouth may have saved their local pride, but we doubt if it convinced the astute general. The Langdon house referred to is of wood and is a remarkably fine example of Colonial architecture as well as an unusually historic old mansion, having sheltered no less notable persons than Washington, Lafayette, the Duc d'Orleans, later Louis Philippe of France, and many other famous Americans and Frenchmen.

The Town Hall Series.* I.

FOR A WESTERN TOWN.

BY A. O. ELZNER.

THE revised statutes of Ohio provide that the government of a village shall be vested in the following officers: a mayor, a clerk, a sealer of weights and measures, a treasurer and marshal, and a council composed of six members, or two from each ward where there are three or more wards. The offices of solicitor and street commissioner are optional, and the latter may be combined in the marshal. Council may by a special ordinance make suitable provisions for any other departments, such as police, fire, park, engineer, etc., as in its judgment may be deemed necessary.

Let us follow custom and therefore suppose in the present instance that the marshal will include the office of street commissioner, and that the office of solicitor will be taken care of by a private law firm in the hire of the council. It is customary furthermore for council to hire and provide an engineer, who takes charge of all public improvements but does not necessarily have a room in the town hall at his disposal. It is eminently preferable, however, that a room should be set aside for this purpose, and the plan of this town hall will so provide. It is not essential, however, that the room should be limited to the use of the engineer, for he will merely require a table and a writing-desk, including possibly a case of drawers for supplies. If council should decide to have a special street commissioner, such an officer could easily be furnished with desk room in the engineer's office or in the marshal's office. If a special police department be provided, it might easily be housed in the basement; although the fire department should be provided for in a separate building apart from the town hall.

There are other minor departments that might be created by council, although the above cover what is cus-

* PROGRAMME.

The problem indicated by the following programme is a town hall such as would be requisite in a village of five or six thousand inhabitants.

It is supposed to stand on the public square of the town, which square is quite closely built up with such buildings as would naturally be found in a locality of this kind. If there are any differences in grade, the town hall is supposed to occupy the highest portion of the land.

The contributors in this series represent different sections of the country, and each design will indicate not only in the matter of arrangement of plan but also in point of architectural style, the sort of thing that would be particularly appropriate for the section of the country in which the building is to be located.

In the matter of accommodations and of the sizes and disposition of the rooms, each contributor uses his own judgment, following out the idea indicated above by preparing designs particularly fitted for the various sections of the United States.

The principal hall in this building would probably be used as a place for certain public entertainments, theatrical and social, but no provision is made for county courts or library. Other departments are included at the discretion of the contributor.

The materials are to be, so far as the exterior is concerned, burnt clay in some of its forms, and the same materials may enter into the interior construction and decoration of the building, at the discretion of the contributor.

The cost of the building, exclusive of furnishings, should not exceed \$50,000. This sum, while perhaps large, is purposely made so with the idea of laying stress on the necessity of having a building of some richness to represent the town in its corporate capacity.

The idea is simply to suggest an appropriate treatment of a problem that frequently occurs for solution.

tomary, and it would not be advisable to encumber the building with a lot of rooms that in all probability would remain idle and unoccupied. Far better it would be to limit the number of rooms and in case of necessity arrange elsewhere for emergencies.

This in general, then, constitutes what might be called the ordinary requirements for a village town hall, and our plan has been arranged accordingly.

Beginning with the basement we can suppose that there is ample floor space for the accommodation of the police, which would include merely a waiting-room with a desk for the officer in charge, and an adjoining small room with a few cells. A coat and wash room should be provided with lockers for the use of the patrolmen. Here would also be located the heating and ventilating apparatus, which would consist of an electrically driven blower fan and plenum chamber, from which flues can be taken to the various rooms. The air supply would be through a spray of water to thoroughly wash it, then through drying tubes and finally to the heating coils. Ventilating outlets would be provided in each room, the flues being all brought together in the roof space and combined in a ventilating lantern directly above the center of the assembly room. In the basement would also be located storerooms for fuel, implements and odds and ends, such as furniture, fixtures, etc.

The main floor is arranged with the entrance in the center of the front which leads through a vestibule 11 feet wide, thence in a lobby 22 feet by 42 feet, at one end of which is the staircase hall full width of the lobby, with a central staircase and returns leading to the second floor. Immediately on entering at the right of the entrance is the mayor's office, 15 feet by 22 feet, with a private office adjoining 14 feet by 20 feet; opening from this private office is a lavatory. Immediately on the left of the main entrance opposite the mayor's office is the marshal's office, a room 15 feet by 22 feet. Directly opposite the main entrance across the rear of the building is the council room, 22 feet by 42 feet, provided with two entrances from the lobby, one at each end of the room, so as to facilitate the entrance and exit of the public, who should at all times have free access to the meetings. The public space, however, is separated from the space occupied by the council by a railing. The council being limited to a few members, being generally six, and only occasionally a few more than this, would arrange itself around a long table, instead of having separate desks as would be the case in large bodies. In this way they would face the public, who would thus be able to follow all proceedings easily.

A committee room 14 feet by 20 feet is provided connecting with this council room, and from this committee room access is had to a private lavatory for the use of members.

At one end of lobby under the landing of main stairs is provided a public lavatory, and at the other end of the lobby across one end of the building are two rooms of equal size, 20 feet by 25 feet 6 inches each, the one for the use of the clerk, the other for the use of the treasurer; the latter has a connecting door leading into the council room for the purpose of affording easy facilities for referring to the books during council meetings. The clerk's office and treasurer's office also have communicat-



DESIGN FOR A TOWN HALL.
A. O. Elzner, Architect.

ing doors, so that the public can have easy access to both of these officials; each of these two rooms is furthermore provided with a vault. At this end of the building is placed a special staircase with an outside entrance leading directly to the stage above and to the basement below. This is for the use of persons taking part in any performance, and for the purpose of carrying scenery and other supplies to the stage.

The second story contains an assembly hall 42 feet by 68 feet, having a capacity of from 350 to 400 seats; this hall is provided with a stage 26 feet by 40 feet, with two dressing-rooms at each end 6 feet by 10 feet. Behind the stage is a staircase hall for the special use of the stage as previously mentioned, and from this hall open two lavatories, one for men and one for women. The main entrance to the hall is made full width of the staircase hall, 22 feet, and is arranged so that the doors can be folded back against the side walls at the close of an entertainment, opening up the entire space so as to facilitate the exit of the audience.

At the head of the stairs and adjoining the main entrance to the hall are two rooms, one on either side, 14 feet by 20 feet, each having a closet opening from it; one is occupied by the sealer of weights and measures, and the other, while not being assigned for any prescribed office, has been set aside for the use of the village surveyor. These two rooms have connecting doors leading into the assembly hall, and in case of a large gathering they could very nicely be used for reception rooms or cloak rooms. It would even be possible to use the one room for the preparation of refreshments on occasions, and for this purpose a sink has been provided.

Opening from the assembly hall on the front of the building is a loggia, the use of which is essential to afford a place from which public speakers can address a gathering of citizens that might be held in the space in front of the building.

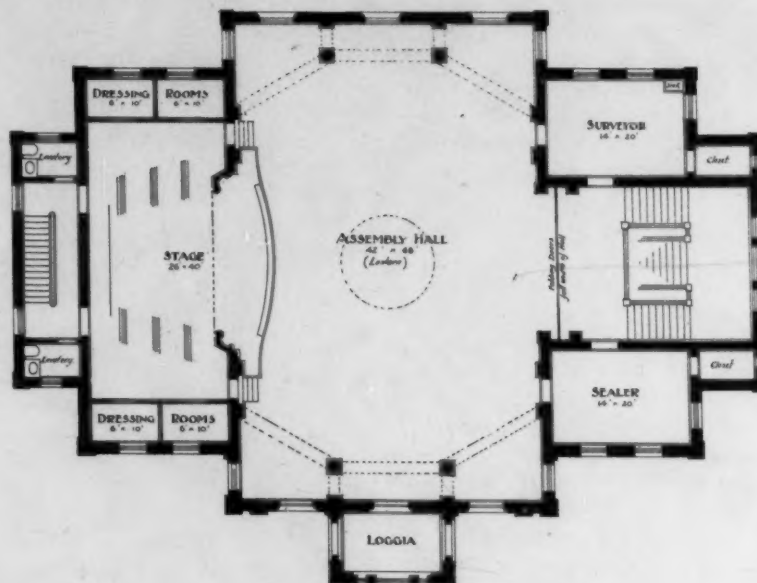
The exterior of the building has been treated in the style of the classic Renaissance, with a central tower

having a clock and a chime of bells that are always desirable in a community. People like to hear the hours strike off as they pass by, and are fond of ringing out the bells on joyous occasions or celebrations of all kinds. It is also a comfort to be able to see a clock at a high elevation, from which all the timepieces in the town can be regulated. The design of the building is arranged with absolute symmetry to this clock tower, this idea being considered as most expressive of the quiet dignity of the government. The tower furthermore serves to mark the building from the distance, as it should be, for after all it is the most important building in the town, representing it in its corporate capacity, and should therefore be easily distinguished among all others by its magnitude and character.

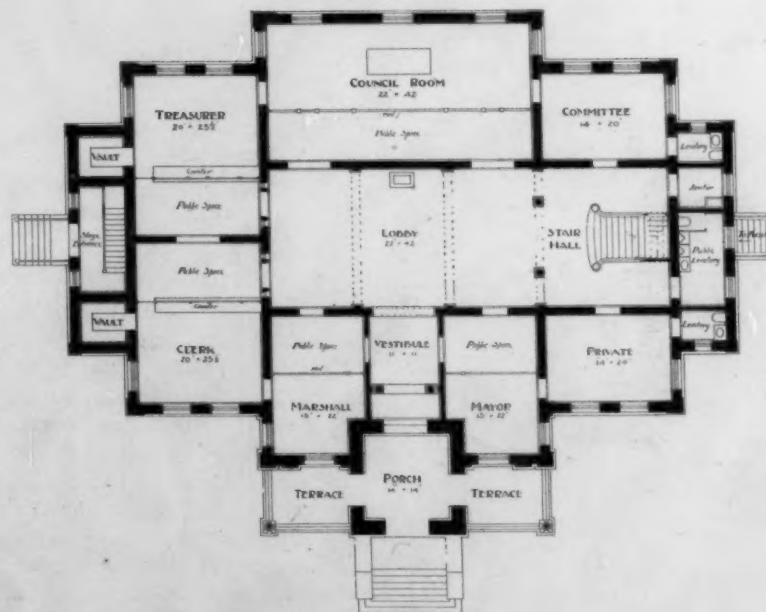
The material used in the construction of the building is intended to be press brick of a warm buff-gray tone for the wall surface, and

terra-cotta of the same finish as the press brick but of a very much lighter shade of color for all the architectural features, or trimmings, as they are called in the vernacular, comprising all moldings, columns, pilasters and other ornamentation.

The roof will be red tile, thus affording a pleasing but quiet color scheme.



SECOND FLOOR.



FIRST FLOOR.

Some Simple Lincolnshire Brick-work.

BY R. CLIPSTON STURGIS.



LINCOLN FROM THE BRAYFORD.

THROUGHOUT England one sees invariably in the older work the reflection of those days when railways were not, and fast freight and cheap transport did not exist. The buildings then were built necessarily of local material, and notwithstanding the modern facilities and local conditions one cannot help the feeling that this is right, and that buildings will seem more in harmony with their surroundings if they have that connection with the neighborhood which local material implies.

In and about Wells, a district abounding in good building stone, one finds stone used nearly everywhere, and the few brick houses which one finds here and there seem to strike a false note and look out of place. So marked is this use of local material in Somerset that one notes his advance across the country by the changing quality and color of the stone, and learns the geology as he rides. At Bath it is the familiar warm yellow of the somewhat perishable Bath stone; at Wells it is the cooler-colored, more durable Doulting. At Draycot even the cottages are built of the reddish conglomerate, which when polished can rank among the marbles. Further south one gets the rich yellow tones of the Ham Hill stone, and beyond Taunton the deeper



FIG. 1. THE CHANCELLOR'S HOUSE, LINCOLN.

yellows, merging as one nears the coast into red, marking the presence of iron.

Throughout all this district stone is abundant and easily quarried and worked, but in Lincoln there are different conditions. It is true there is good stone, and near Lincoln itself there is some abundance, but there is also much clay, and brick is therefore the cheaper mate-

rial. The city as a whole is a city of red houses, red brick and red tile; the great cathedral rising above the reds in warm yellow or cool gray, according to the light. Nothing could be more fascinating than this combination of the humbler buildings in the humbler material, and the magnificent minster church around which they cluster; the minster on its hilltop, the houses around and beneath it dotting the hill.

Nearly all the distant views of the cathedral are fine, but none more delightful than that from the Brayford, the pool where the barges from the Witham and the Fosse Dyke congregate. All the houses which form the foreground are brick, of many shades of red, and are roofed with tile.

To take the houses in detail: that of the Chancellor is one of the oldest and also one of the most interesting. It belongs to the end of the sixteenth century and is built of a red brick of very nearly the regulation modern



FIG. 4. CASTLE HILL, LINCOLN.

English dimension and running four courses to eleven inches. All the cut work, coigns, door and window jambs, sills and mullions are stone. The plan follows fairly closely the original layout. Within the vestibule with the great doors—a most unusual feature for a mediæval private house—there are two small doors, one giving on the garden and serving as a tradesmen's entrance to the kitchen, and the other entering the house. On the ground floor, a little below the level of the street, were cellars, and above this the drawing-room. Originally, I take it, the two rooms on the front were one and, extending up to the roof, constituted the hall. Beyond this point the house is a series of surprises, for it stretches away in a long wing on the left—the north—and the lot gradually widens on the south so that the garden space is constantly increasing. The wing contains the modern dining-room, made out of an enlarged portion of the original cellars, the great kitchen, and the original chapel—quite recently discovered and restored. How amusing it must be to live in a house where any simple operation of repair or renewal may open up some forgotten treasure! This chapel had been ceiled down, the walls had been furred and papered on canvas, and nothing except the

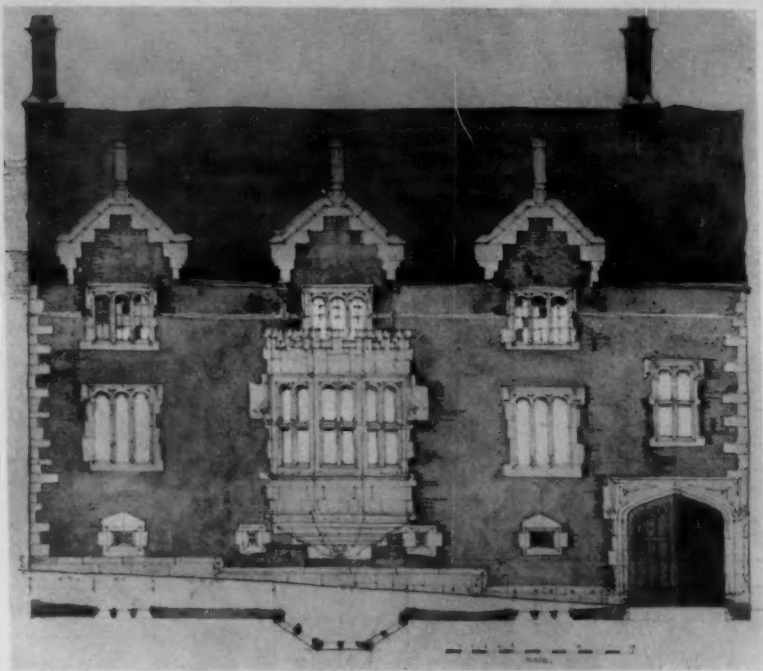


FIG. 2. THE CHANCELLOR'S HOUSE, LINCOLN.

somewhat elaborate windows—partly blocked—remained to show what it had been. Some years ago a chance revealed an aumbry, or closet, used for sacred vessels. This, however, might have been for common use, and nothing was then done; but three years ago another chance revealed a piscina, and there could then no longer be any doubt that the original chapel had been found. It was then most carefully uncovered and restored. A finely executed wood screen forms the entrance. The walls are stone, the good windows are again opened out, and the removal of the plaster ceiling revealed a fine oak one. The house is so interesting that one is tempted to linger.

We pass from this mediæval house to one quite modern (Fig. 3). It stands to the north of the cathedral



FIG. 3. THE DOCTOR'S HOUSE, LINCOLN.

and has splendid views of the broad tower and the west towers. It is nothing remarkable, simply a quiet, unpretentious, comfortable house, such as looks well and wears well.

Between this, in time, is the good old red brick double house which stands next the half timbered house known in Lincoln as the Elizabethan house (Fig. 4). This is our familiar Georgian type, though the house, I fancy, dates before the Georges. The house with the simple attempt at Palladian windows is perhaps not quite so pleasing, because it attempts more (Fig. 5). Still it looks dignified and has an air about it which seems to proclaim gentle birth. Opposite it is another house which like the Chancellor's gives no hint of what lies behind. It is a mere city front on the street, but the garden side is almost country. (Fig. 6.)

The double house in the minster yard is one of those houses which makes one stop and wonder why it should interest one at all (Fig. 7). There is nothing architectural about it,—a plain three-story house with a simple roof. It must be the good proportion, the size, division and disposition of the windows, and perhaps, not least, the little set-back from the street which



FIG. 5. HOUSE ON THE EAST GATE, LINCOLN.

gives chance for a strip of grass and soil for the climbers which partly cover the front.

Almost the same might be said of the next house (Fig. 8), except that here we have the added interest of an unusual plan. The main house sets well back from the street,—some fifty feet or more,—and the wing comes forward on the north side to the street line. Thus the house encloses a little garden fore-court. Constructionally this house is even simpler than the last, for there is no stone at all. Heads and sills, jambs and coigns are all brick. The caps of the brick fence posts and the



FIG. 6. THE GARDEN FRONT—A HOUSE IN LINCOLN.

coping of the wall are the only bits of stone, yet the whole place is thoroughly charming.

The last house will vie with either of the others for absolute simplicity, and in the face of these simple things one cannot but feel convinced that we are often too apt to spend time and money over elaborations which in no way repay the outlay they represent. (Fig. 9.)

In one respect all the buildings here shown drive home the lesson which our own best men have long been trying to teach, viz.: that no brickwork looks so well as that which shows the variety of surface and color



FIG. 7. DOUBLE HOUSE, MINSTER YARD, LINCOLN.

which is obtained by the differences in firing in the kiln. All these buildings are built of brick which have been used just as they came from the kiln; they were not even afraid of an occasional soft brick, and one has all the variety of color which this gives. One is inclined to think that we are often over cautious about soft brick, which are of fine color, and which, unless most unusually

underburnt, will stand a good deal of wear and tear. The soft brick in its more rapid weathering often helps to vary not only the color but also the surface, and if in fifty or a hundred years it has to be replaced, after all that is no great price to pay for the pleasure it has given. In the judicious use of brick we are, I think, ahead of the English architects, who seem still bitten



FIG. 8. HOUSE AT POTTER'S GATE, LINCOLN.

with the philistinism which specifies brick culled to an even tone, but I don't think even the English architect has done what some of us have, *i. e.*, to make a very fine joint with mortar to match the brick and thus go as far as possible towards imitating a plain painted surface. However, there are all kinds of people and all kinds of tastes and room enough for all, and one is hardly justified in condemning what appeals to the taste of many people, but the old brickwork which most of us admire and love had no touch of the over refinement which tends to emasculate art.



FIG. 9. HOUSE OPPOSITE THE ARCHDEACON'S, AT LINCOLN.

Fire-proofing.

Tests of Fire-proof Partitions by the New York City Building Department.

A REMARKABLY interesting series of tests has been made recently under the supervision of the Department of Buildings, New York City, on fire-proof partition materials. Briefly stated, the purpose of the test was to record the effect of a fire of one hour's duration, commencing at 500 degrees Fahrenheit and increasing to 1,700 degrees Fahrenheit, followed immediately by the application of a stream of water from a hose on the exposed side for two and a half minutes. The areas of the partitions tested were 137.75 square feet, with a width of 14 feet 6 inches and a height of 9 feet 6 inches. The tests were made in a test house similar in design to those heretofore used for such tests. The following forms of partition were tested:

Bell Plaster Composition Blocks.—One partition of solid section 2 inches thick and one of hollow section 3 inches thick. The composition of the blocks was plaster of Paris and cinders. After the blocks were put in place they were covered with $\frac{1}{2}$ -inch coat "King's Windsor" plaster. Maximum temperature during test, 1,724 degrees Fahrenheit.

Metropolitan Partition.—Solid plaster composition blocks 2 inches thick. The composition of the blocks was plaster of Paris, wood chips, cocoanut fiber and asbestos. After the blocks were put in place they were covered with $\frac{1}{2}$ -inch coat "King's Windsor" browning. Maximum temperature during test, 2,030 degrees Fahrenheit.

Norman Partition.—Solid composition plaster blocks 2 inches thick. The composition of the blocks was plaster of Paris and wood fiber. The blocks were fastened together with rods and turnbuckles. After the blocks were put in place they were covered with a $\frac{1}{2}$ -inch coat of "King's Windsor" browning. Maximum temperature during test, 1,706 degrees Fahrenheit.

Sanitary Partition.—Solid composition plaster blocks 2 and 3 inches thick, fastened together with metal rods. The composition of the blocks was plaster of Paris, ashes and a fluid cement. After the blocks were put in place they were coated partly with common lime mortar and partly with Platt plaster. Maximum temperature during test, 1,832 degrees Fahrenheit.

White Partition.—Solid and cellular composition plaster blocks 3 inches thick. The composition of the blocks was plaster of Paris, asbestos and wood fiber. The blocks after being put in place were plastered with "Adamant" browning, $\frac{1}{2}$ -inch coat. Maximum temperature during test, 1,760 degrees Fahrenheit.

Freeman-Dobbin Partition.—Solid and cellular composition plaster blocks, the solid 2 inches thick and the cellular 3 inches thick. The composition of the blocks was plaster of Paris, silicate and carbonate of lime and

wood fiber. The blocks after being put in place were plastered with a $\frac{1}{2}$ -inch coat gauged mortar. Maximum temperature during test, 1,760 degrees Fahrenheit.

Expanded Metal Lath and Plaster Partition.—Composed of expanded metal on $1 \times \frac{1}{8}$ inch metal studs at 12-inch centers covered with scratch and browning coat of "King's Windsor," making a total thickness of $2\frac{1}{2}$ inches. Maximum temperature during test, 1,706 degrees Fahrenheit.

Moeslein Partition.—Metal lath and plaster partition, composed of perforated sheet metal attached to both sides of T iron studs $1 \times \frac{1}{8}$ inch at 11-inch centers, forming an air space $1\frac{3}{8}$ inches between the metal sheets, covered with "King's Windsor" scratch coat, making a total thickness of 3 inches. Maximum temperature during test, 2,021 degrees Fahrenheit.

Roebbling Partition.—Wire mesh and plaster. Composed of two sheets of No. 22 wire $\frac{3}{8}$ -inch mesh, stiffened by $\frac{1}{4}$ -inch steel rods 7 inches apart attached to $2 \times \frac{1}{8}$ inch metal studs, forming an air space 2 inches wide between the metal sheets, covered on the inside with white putty coat of plaster, and on the outside with "Rock wall plaster" to a thickness of 3 inches. Maximum temperature during test, 1,994 degrees Fahrenheit.

Roebbling Partition.—Wire mesh and plaster. Construction same as above, but of one sheet of wire mesh on $\frac{3}{8} \times \frac{1}{8}$ inch channel studs at 16-inch centers, covered with "Acme" patent plaster to a thickness of $2\frac{1}{2}$ inches. Maximum temperature during test, 1,800 degrees Fahrenheit.

Averill Partition.—Metal lath and plaster. Composed of $\frac{1}{8} \times 1$ inch flat uprights at 12-inch centers fastened top and bottom to $\frac{1}{8} \times 1$ inch plates with Schratwieser metal lath on one side. The metal lath was plastered on one side, and the other side was filled in with sawdust and hydraulic cement composition flush with the metal studs. This was then plastered with a scratch and browning coat of sand and hydraulic cement, making a total thickness of $2\frac{1}{2}$ inches.

Averill Partition.—Sawdust and hydraulic cement composition blocks 2 inches thick plastered with scratch and browning coat of cement mortar to a thickness of 3 inches. Maximum temperature during test, 2,102 degrees Fahrenheit.

Schratwieser Partition.—Metal lath and plaster. Solid and hollow partition similar to other metal lath partitions, plastered with "King's Windsor" asbestos cement to 2 and 3 inches respectively. Maximum temperature of test not taken because of accident to pyrometer.

Tile Block Partition.—Henry Maurer & Son. Porous terra-cotta cellular blocks composed of $12 \times 9 \times 2$ inches hollow blocks with three air cells each, the walls of the blocks being about $\frac{1}{8}$ inch thick. In the horizontal joints a metal strap $\frac{3}{8}$ inch wide of No. 24 United States gauge was laid. In another wall $8 \times 12 \times 3$ inches semi-porous cellular blocks with two air cells were used without the metal strap. Both partitions were plastered with $\frac{1}{2}$ -inch "King's Windsor." Maximum temperature during test, 2,057 degrees Fahrenheit.

Brinkman Partition.—S. G. Brinkman's solid terra-cotta blocks composed of $15\frac{1}{2} \times 9\frac{1}{2} \times 2$ inches blocks and $16\frac{1}{2} \times 10 \times 1\frac{1}{2}$ inches blocks, with a stamped metal I bar laid in the horizontal joints supported by metal uprights.

Each partition was covered with $\frac{1}{2}$ inch of plaster on each side. Maximum temperature during test, 1,706 degrees Fahrenheit.

Concrete Block Partitions. — Sprickerhoff partitions. The composition of the blocks was one part Portland cement, one part of sand and five parts steam ashes, covered with $\frac{1}{2}$ -inch coat of "King's Windsor" browning mortar. Maximum temperature during test, 1,868 degrees Fahrenheit.

The result of the tests can be briefly summarized:

Composition Plaster Blocks. — All the composition plaster block partitions had the plaster coating calcined from their surface, and the body of the blocks was also calcined to a greater or less depth, generally from $\frac{1}{2}$ to $1\frac{1}{4}$ inches, and this portion was washed away by the water. In no case did the fire or water pass through the partitions. It is interesting to note here that had the test been continued for a longer time the whole thickness of this composition plaster would have been calcined and therefore rendered incohesive and soluble.

Metal Lath and Plaster Partitions and Metal Lath and Cement Composition (Averill). — All the metal lath partitions had the plaster or cement composition calcined to a greater or less depth, part of which was washed away by the water, exposing in some places the metal work. In no case did the fire or water pass through the partitions. The same observation holds good here, as in the case of the plaster block composition blocks, that had the fire been continued for a longer time the whole thickness of the plaster would have been calcined and therefore rendered incohesive and soluble, and after this the metal work would have been directly exposed to the fire.

Tile Block Partitions. — Porous and semi-porous cellular terra-cotta blocks. The only effect of the fire and water on the terra-cotta cellular blocks, was to remove the plaster coating, leaving the stability of the wall intact and actual material of the block uninjured.

Solid Terra-Cotta Blocks with Exposed Stamped Metal I Beam Fastenings. — One effect of the fire and water had been to remove the plaster. Another effect was, the metal fastenings were slightly deflected in places. The blocks suffered no injury. In no place had fire or water passed through the partition.

The result of these tests makes one thing very plain, which was already well known to those having an elementary knowledge of chemistry — that plaster of Paris, lime plaster, carbonate of lime or any of its compounds are not fire-proof materials; that at best they are merely non-combustible and cannot resist the action of fire and water either separately or alternately. Therefore any partition depending upon these materials for its structure or its filling cannot be depended upon to endure great heat for any considerable length of time; and any partition whose metal structure is dependent upon an insulation of plaster and its compounds must fail by reason of the destruction of the insulating material and the exposure of its structure to the direct action of the heat. Another result which is also evident is that in the event of a fire not sufficient to totally destroy the plaster composition partitions, the repairs required to restore them to an acceptable condition would amount almost to a virtual replacement of many of the blocks of the block partitions and a refilling of the plaster body in the metal lath parti-

tions, an item which must be considered in deciding on the relative merits of various materials.

In regard to the tests of the porous and semi-porous tile blocks, the solid tile blocks and the concrete blocks, had the test been carried further — to the point of failure of these two different materials — the result could be predicted almost to a certainty. The concrete blocks probably would have been affected first. The component parts of the concrete having different coefficients of expansion would have been under great strain, and upon the application of water, under the sudden cooling, would probably have developed cracks which would have impaired its structure. The calcining effects of the great heat would also have affected the cement to some extent (depending upon the temperature), and this would have impaired its bonding properties.

The porous and semi-porous cellular fire clay terra-cotta, being a porous homogeneous material, could have endured a continuous heat short of the vitrification point without any structural disintegration, and could then have passed through the water test without harm, because its porous structure would have allowed contraction of volume without great strain, as the introduction of pores or minute air cells into its structure permits sudden contraction without appreciable destructive effects.

All these results are what might have been expected. Fire clay needs no recommendation; its qualities are too well known to require it. The blast furnace, the steel converters, the open-hearth steel furnaces, and the dome and rotary cement kilns, all testify to the uses to which this refractory material can be put. It is not strange, then, that it endures where other materials fail.

In judging these tests, however, one fact must not be overlooked. All these partitions were without openings and rested upon a brick floor, or on steel members which rested on the brick floors. It is hardly necessary to point out that these conditions were highly favorable ones for the test, but one of these conditions, that of no openings, cannot always be realized in practice. The fact that it cannot be realized, however, makes it highly important that the openings be made as few as possible and that all openings be reinforced with metal frames covered with insulating material. The partition should be made as independent as it is possible to make it of any required additional stability, but as conditions sometimes make this dependence necessary, the metal frames around such openings should be carefully secured to floor and ceiling and thoroughly protected from sudden changes of temperature. The partition should also rest directly upon and be cemented directly to the incombustible floor material, so that the bond of these two can be depended upon. It is no uncommon thing to see partitions set upon a layer of dust, which of course prevents any possible bond between the floor and the partitions and may cause the partition to fall in case of strain. Partitions set upon wood or other inflammable material cannot be considered as any more than temporary non-combustible screens which may fall at a critical moment.

In conclusion it may be said that the porous fire clay material as a fire and water resisting medium has been proven. Now the fulfillment of its highest function depends entirely upon the intelligent use made of it by the architect and manufacturer.

Selected Miscellany.

NOTES FROM NEW YORK.

The Tenement House Commission, of which Mr. Robert W. De Forest is chairman, will have offices in the Telephone Exchange, southwest corner of 18th Street

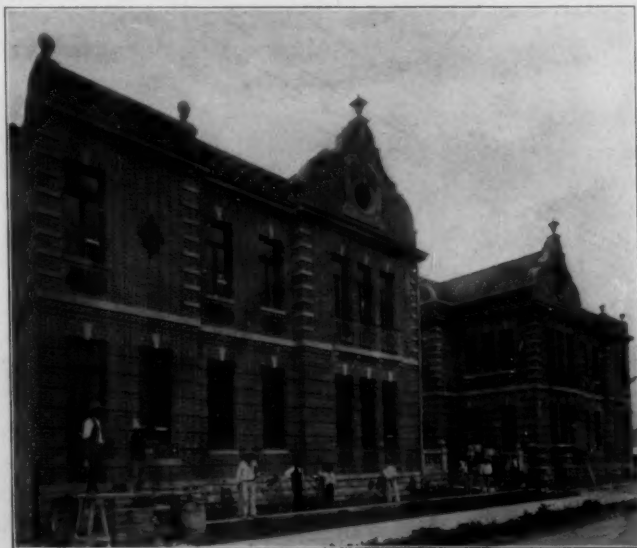
work can be commenced. In this connection I would say that owing to some of the absurd arbitrary conditions of the new tenement-house laws very little work in that line is now being projected, or is likely to be until the law is modified. If built strictly in accordance with this law they become so expensive to construct that the owners must perforce require a large rental to make them



HOUSE LOCATED IN A BOSTON SUBURB.
John A. Fox, Architect.

and Irving Place, and their duties hereafter will be much more important than heretofore. All plans for tenements will have to be filed with and approved by this commission as well as by the Department of Buildings before

pay, and they are generally built in a locality where the occupants can afford to pay very little. Then the enormous light courts required make it almost impossible to plan a convenient tenement on a narrow lot.



RESIDENCES, CITY OF MEXICO, MEXICO.
J. Edward Campbell, Architect.



RESIDENCES AT MINNEAPOLIS, MINN.
F. B. & L. L. Long, Architects.

A revision of this law is an immediate necessity.

For many years we have felt the pressing need of enlarged post-office facilities, and with the aid of the press every effort has been made to secure this important result. It now looks as though our hopes would be realized, for bills have been introduced into both houses of Congress asking for an appropriation of \$2,500,000 for the purpose, and although such bills have heretofore been defeated the "rural"

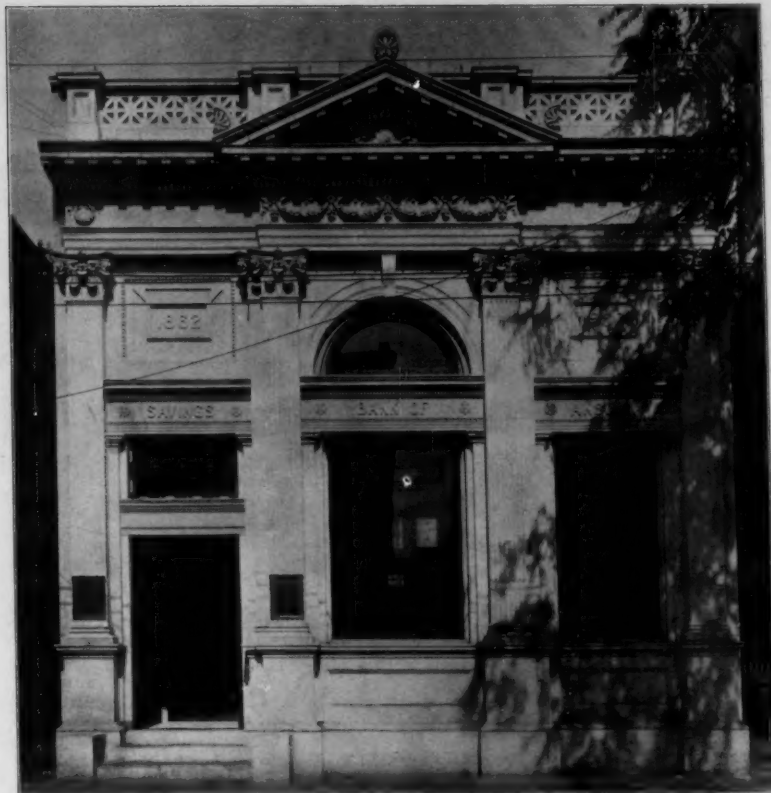


SUNDAY-SCHOOL CHAPEL, BILTMORE, N. C.
R. H. Hunt, Architect.

members have promised not to oppose it this time. New York is the great clearing house for the United States in the reception and forwarding of its mails from and to all other nations, and the increase in the volume of mail matter keeping pace with the growth of the country and the expansion of its commerce is too obvious to call for comment. The promptitude and efficiency of the mail service throughout all the states therefore depends in a great measure upon the facilities afforded New York.



HOUSE FOR ROBERT RAMSEY, CINCINNATI, OHIO.
Elsner & Anderson, Architects.



SAVINGS BANK, ANSONIA, CONN.
Brown & Von Beren, Architects.

In an interview with Mr. Thomas Hastings published in a recent number of the *Scientific American* he makes an interesting suggestion in regard to the new post office. He proposes building it with a frontage on the East River at the foot of 41st Street, widening this street as far as 5th Avenue and thus making a fine boulevard with the post office at one end and the new Public Library at the other. A post office at this point would be central for the greater city, would make a beautiful and imposing appearance from the river, and foreign mail could be handled with the greatest convenience.



CAPITAL BY FULLER & PITCHER,
ARCHITECTS.
Excelsior Terra-Cotta Co., Makers.



CAPITAL, STANDARD TERRA-COTTA
WORKS, MAKERS.

Our architects are putting in all their spare time now in getting ready for the exhibition of the League which opens next month. They are having bird's-eye views prepared of the buildings which they showed last year in elevation and are dusting off and revarnishing old frames.

The League becomes more and more dignified each year and everything conducive to sociability and good fellowship is being weeded out. There was a time, which most of us recall with pleasure, when during the exhibition a "smoker" was held each Saturday evening, when formality was dropped and when a most innocent good time was enjoyed by everyone, but for some unaccountable reason these affairs have been cut out.



LEWIS & MAYCOCK BUILDING, NEW HAVEN, CONN.
Brown & Von Beren, Architects.

The members also were in the habit of decorating menu cards for the annual dinner, which were all handed in at the time and then distributed among those present, being pretty and appropriate souvenirs of the occasion. This pleasant custom has also been abolished, probably being considered undignified. We earnestly hope that

the competition for the Newark Court House. There were about twenty men present besides the guests of honor, Mr. Frank Miles Day and Mr. Warren P. Laird. Those who were fortunate enough to be present say that they had the time of their lives, and those who know Mr. Gilbert's capabilities as a genial host may well believe it.



LIVING-ROOM.



DINING-ROOM.

HOUSE FOR L. D. DREWRY, CINCINNATI, OHIO.
Elzner & Anderson, Architects.

the younger members of the League will get together and revive a little of the life which it once possessed and enjoyed.

Last week Mr. Cass Gilbert gave a dinner at Sherry's to the employees of his office in honor of having won

A new building is to be erected at Broad and Beaver Streets which will be even larger than the Broad-Exchange Building, which is now the largest office building in the world. The building is being planned by Clinton & Russell, architects, for the George A. Fuller Company.



EAST BOSTON HIGH SCHOOL, EAST BOSTON, MASS.
John Lyman Faxon, Architect.
Built of Gray Brick made by the Kittanning Brick Company,
Pittsburgh, Pa. Fiske & Co., New England Agents.

The Goelet estate intends adding 211 feet frontage to the Hotel Imperial at Broadway and 32nd Street. McKim, Mead & White designed the original building and will draw plans for the addition.

NOTES FROM SAN FRANCISCO.

Building continues active, and the prospects for the new year are very bright. It is probable that this year would have been a record breaker had it not been for the protracted strike of the teamsters during the fall, which greatly retarded building operations.

The tendency is growing rapidly to build better; and particularly the more frequent use of fire-proof construction is very noticeable in mercantile buildings as well as in residences.

We are promised at no distant date new building laws which, let us hope, will be more explicit and comprehensive than the existing ones, which have outgrown their usefulness, if ever they had any.

The Board of Examiners for the Northern District of California held their first examination for architects



NEW LIBRARY AT WALLINGFORD, CONN.
Roofed with Celadon Roofing Tile.

under the new law the last week in October, in which they passed two candidates. The examination occupied a space of three days. Among the problems were de-



FIRE HOUSE, CAMDEN, N. J.
Thomas H. Stephen, Architect.
Built of "Ironclay" Fire Flash Brick made by the Columbus
Face Brick Company, O. W. Ketcham, Philadelphia Agent.

signing and planning a large brick and terra-cotta suburban residence; calculating foundations, piers, joists, girders, posts and columns, etc., for a heavy brick warehouse; plumbing and other specifications, and figuring out strains, etc., in a wooden truss and detailing same.

A marked sign of the rapid growth in population of San Francisco is the large number of hotels and apartment houses under way in the offices of our architects and in course of erection. All through the city residences and flats are at a premium; rents are high, with a decided upward tendency.

The obliteration of "Chinatown," the show place and disgrace of the city, is a dream that our citizens hope soon to realize. We hope to



NEW SCHOOLHOUSE AT INDIANAPOLIS, IND.
Adolph Sherrer, Architect.
Built of Norman Gray Brick made by the Columbus Brick and Terra-Cotta Company.



REAL ESTATE TRUST AND HALLOWELL BUILDINGS,
PHILADELPHIA, PA.
Edgar V. Seller, Architect. Terra-Cotta furnished by the
New York Architectural Terra-Cotta Company.

have one of the best business localities cleared of the unsanitary and ramshackle buildings now occupied by the "heathens," and modern improvements built thereon. The passage of the Chinese exclusion act will naturally hasten this blessing.

Architects Fred H. Meyer and Smith O'Brien formed a copartnership the first of the year, offices in the Chronicle Building.

The San Francisco Architectural Club, a recent organization, have rented quarters at 14 McAllister Street, near the Hibernia Bank.

The competition for the new German Hospital ended in nothing, the jury, consisting of three architects, deciding that none of the plans submitted was worthy of being selected, so they awarded a second and third prize, against which decision the other competitors registered



DETAIL BY HODDART & WARD, ARCHITECTS.
Northwestern Terra-Cotta Company, Makers.



CASINO, 124TH STREET, NEW YORK CITY.
Alfred Zucker, Architect.
Brick furnished by the Ohio Mining and Manufacturing Company.

such a vigorous "kick" that the hospital committee decided not to award anything, so there the matter stands. It is probable an architect will be selected later without having recourse to another competition.

NEW YEAR'S GIFTS.

We have received from R. Guastavino Company, 19 Milk Street, Boston, and 49 East 19th Street, New York, a handsome calendar bearing a photographic illustration of an interesting piece of work which they have recently executed.

From Lesley & Trinkle Company, 22 South 15th Street-Philadelphia, Pa., a very novel calendar representing players at golf.



DETAIL BY PHILIP H. JOHNSON, ARCHITECT.
New Jersey Terra-Cotta Company, Makers.



DETAIL BY FRANK FREEMAN, ARCHITECT.
B. Kreischer & Sons, Makers.



DETAIL BY BARNETT, HAYNES &
BARNETT, ARCHITECTS.
Winkle Terra-Cotta Company, Makers.



DETAIL BY W. A. COOKMAN,
ARCHITECT.
Perth Amboy Terra-Cotta
Company, Makers.

From the Pope Cement and Brick Company, 421 Wood Street, Pittsburgh, Pa., a splendidly gotten up vest-pocket diary.

IN GENERAL.

Frank L. Packard, architect, Columbus, Ohio, successor to Yost & Packard, has taken offices in the new Hayden Building, 16 East Broad Street, Columbus.

Arthur B. Heaton, architect, Washington, D. C., has removed his offices to the Washington Loan and Trust Building, 1420 F Street, N. W., where he would like to receive manufacturers' catalogues.

Fred E. Field and Harry A. Slocumb, architects, Providence, R. I., announce a copartnership. Offices, 48 Custom House Street.

The terra-cotta used in the house at Cedarhurst, L. I.,



DETAIL BY J. T. W. JENNINGS, ARCHITECT.
American Terra-Cotta and Ceramic Company,
Makers.



DETAILS BY BARNEY & CHAPMAN, ARCHITECTS.
Atlantic Terra-Cotta Company, Makers.



DETAIL BY JAMES BROWN
LORD, ARCHITECT.
White Brick and Terra-Cotta
Company, Makers.



EXHIBIT OF THE BLUE RIDGE ENAMEL BRICK COMPANY AT PAN-AMERICAN. FIRST AWARD.

communications are invited in regard to machinery, shafting, pulleys, belting, kilns, etc., and should be addressed to Box 555, New Britain, Conn.

The sixteenth annual convention of the National Brick Manufacturers' Association is to be held in Cleveland, Ohio, February 10 to 15 inclusive. Headquarters will be at the Hollenden Hotel, where the annual dinner will be held on Wednesday evening, February 12. The committee in charge are arranging a programme which will amply provide for the comfort and entertainment of the attending members.

A novel feature of the convention will be a display of brick representative of the brickmaker's art.

It is expected that many of the leading brick manufacturers of the country will be in attendance, and this in itself should insure a large attendance of manufacturers' agents. A feature of the programme will be an address by one of Cleveland's well-known architects and a paper by a prominent Cleveland builder.

Barney & Chapman, architects, which is illustrated in the plate form of this number, was executed by the Atlantic Terra-Cotta Company.

"Harvard brick," supplied by Pfotenhauer & Nesbit of New York City, sole agents of the New England Brick Company for all states south and west of Massachusetts, will be used in a fine new residence at Westbury, L. I., of which Warren, Wetmore & Morgan are the architects.

Charles Bacon, Boston agent for Sayre & Fisher Company, will supply brick on the following new contracts: Meigs Building, Bridgeport, Conn., A. H. Bowditch, architect; schoolhouse, Tarrytown, N. Y., Wheelwright & Haven, architects; engine house, Cambridge, Mass., Robert Coit, architect; Weld house, Brookline, Mass., Peters & Rice, architects.

The Boston Paving Brick Company has been incorporated under the laws of the state of New Jersey with a capital stock of \$150,000, and Messrs. Daniels & Co. of 6 Wall Street, New York, have charge of the disposal of the bonds. The offices of the company will be at 923 Colonial Building, Boston, and 8 Booth's Block, New Britain, Conn. Com-



STOCK MANTEL NO. 19.
Made by the Hartford Faience Company.

"School Architecture."

A General Treatise on Designing and Planning of Schoolhouses.

BY EDMUND M. WHEELWRIGHT.

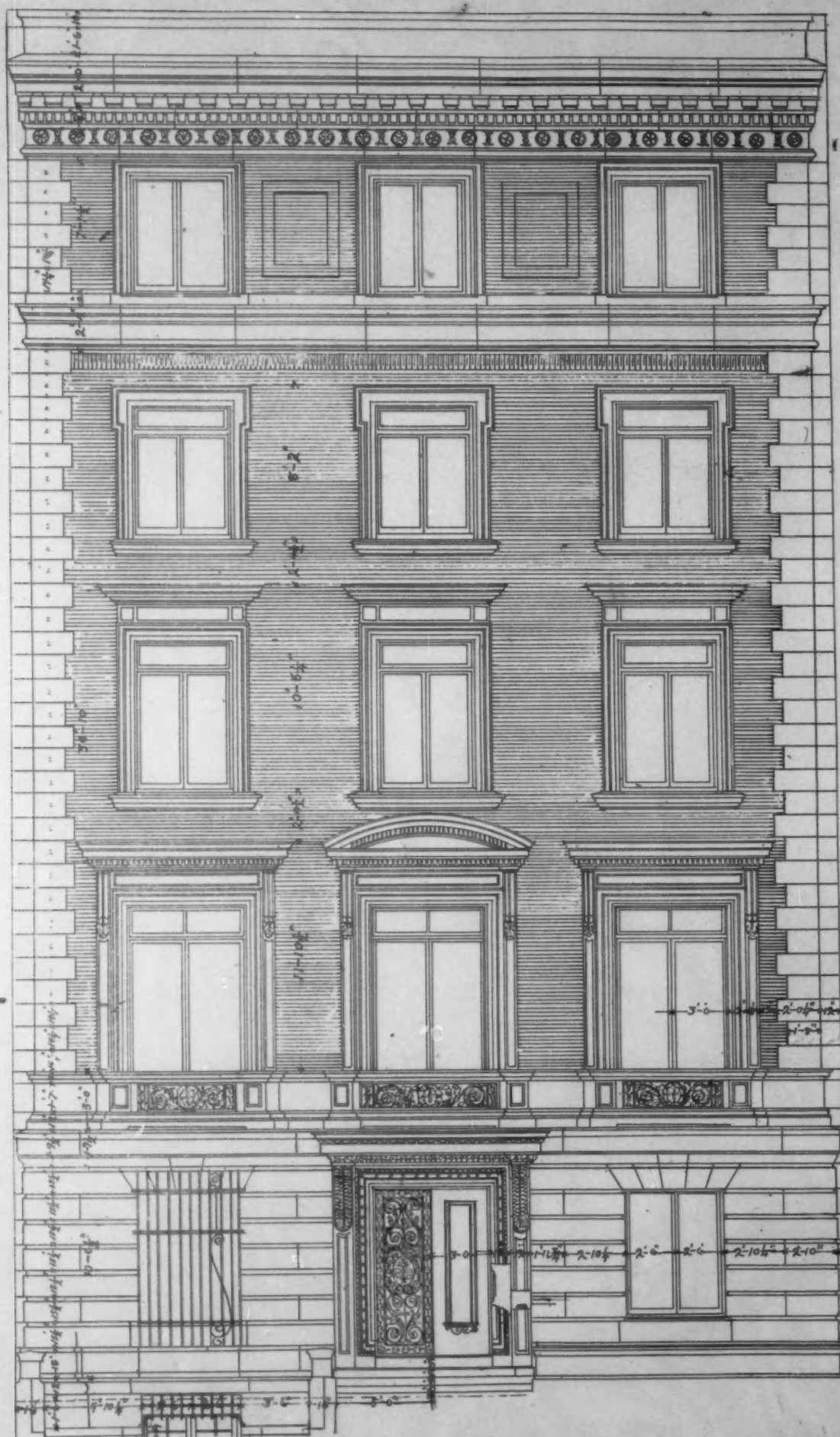
More than 250 Illustrations of Schoolhouses and Plans; many of the best types of all grades having been chosen.

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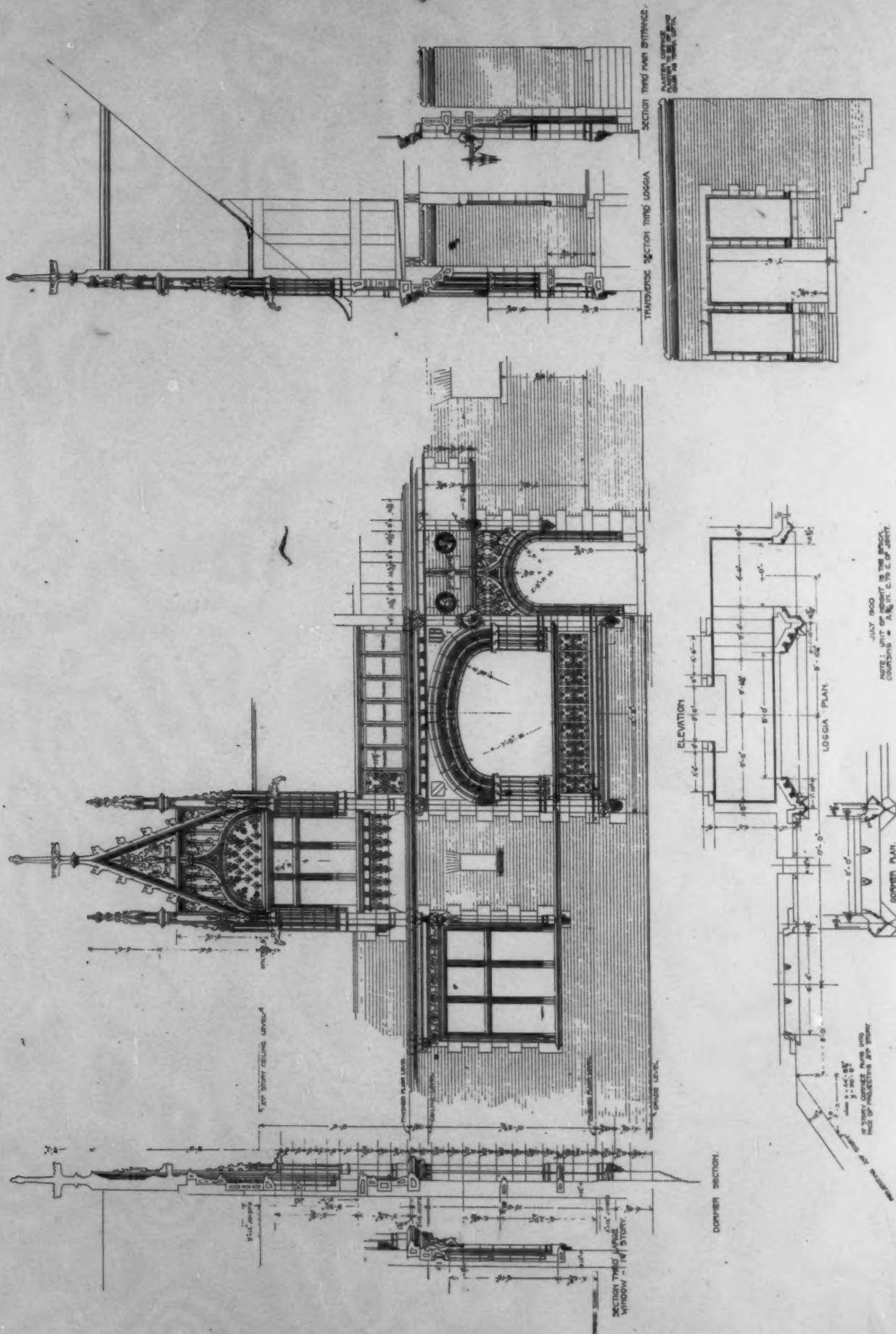
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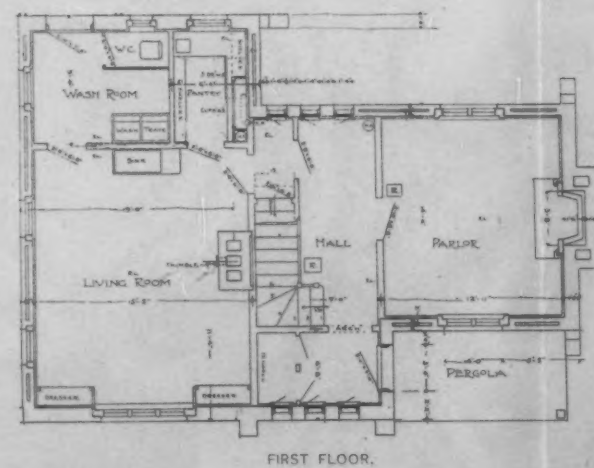
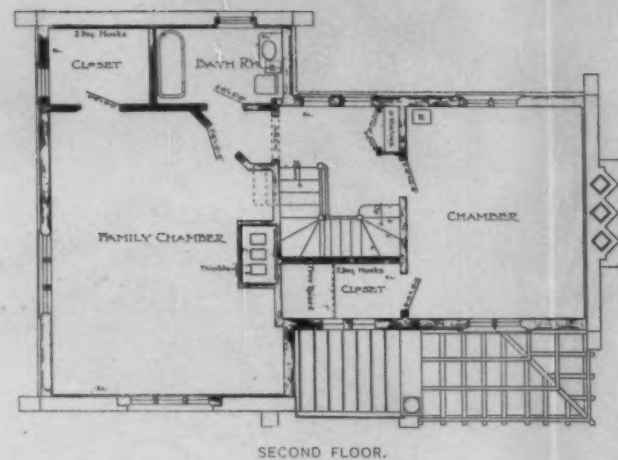
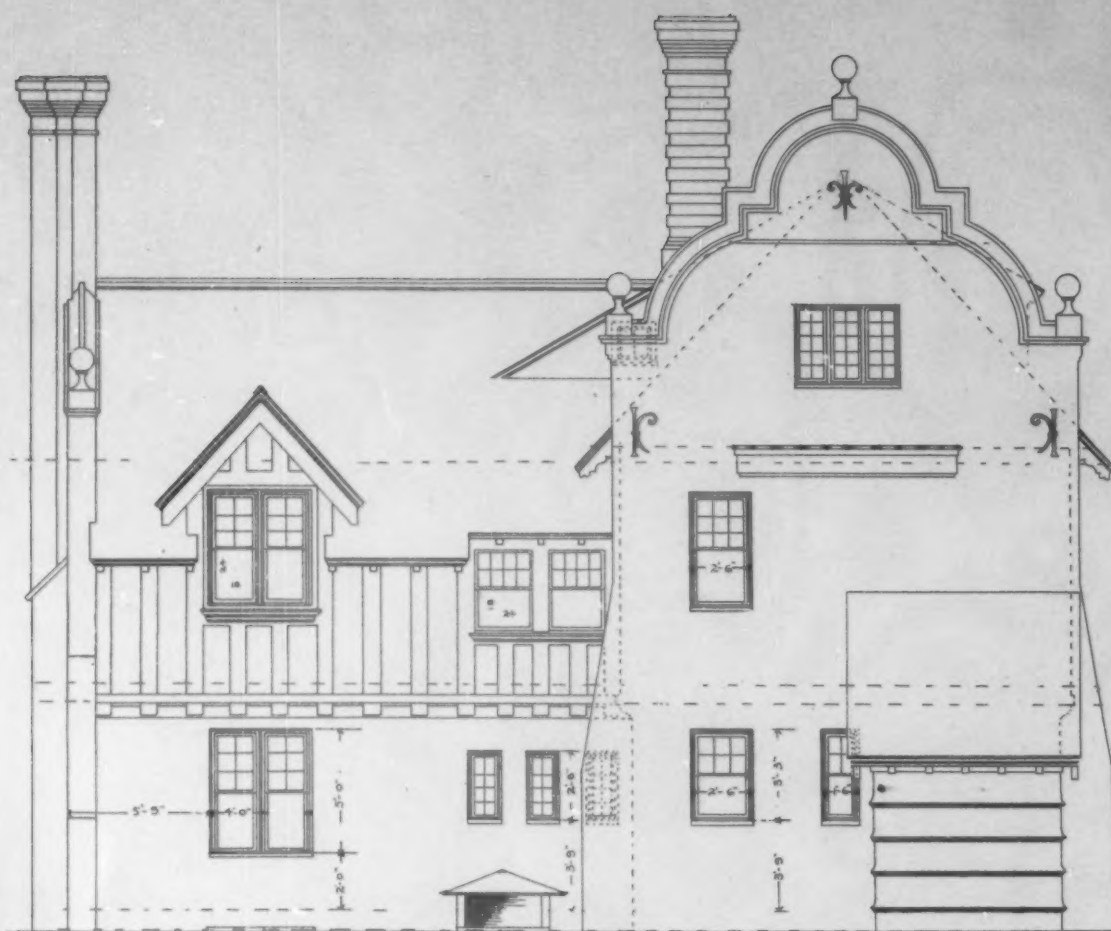


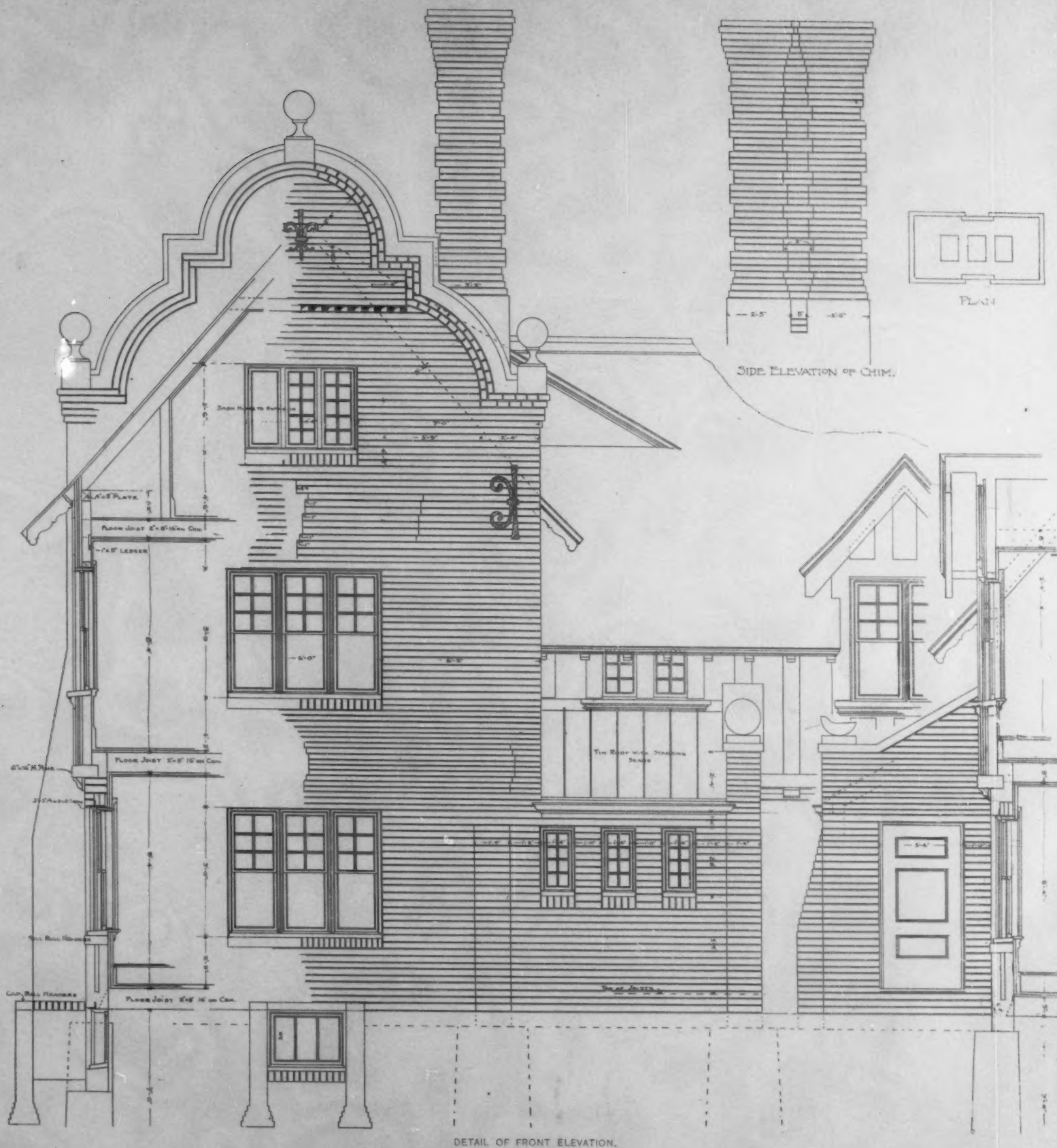
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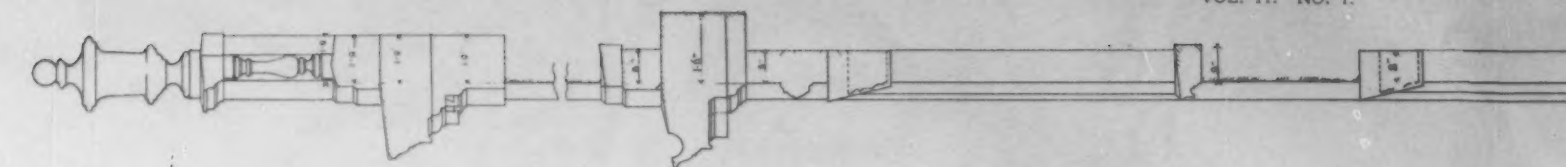


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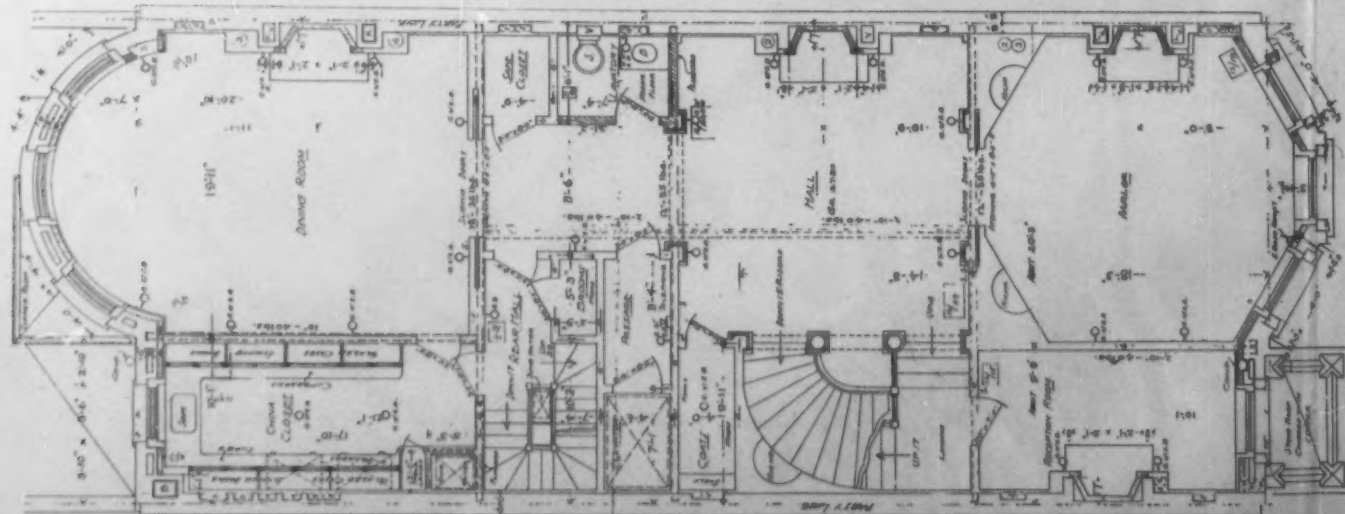
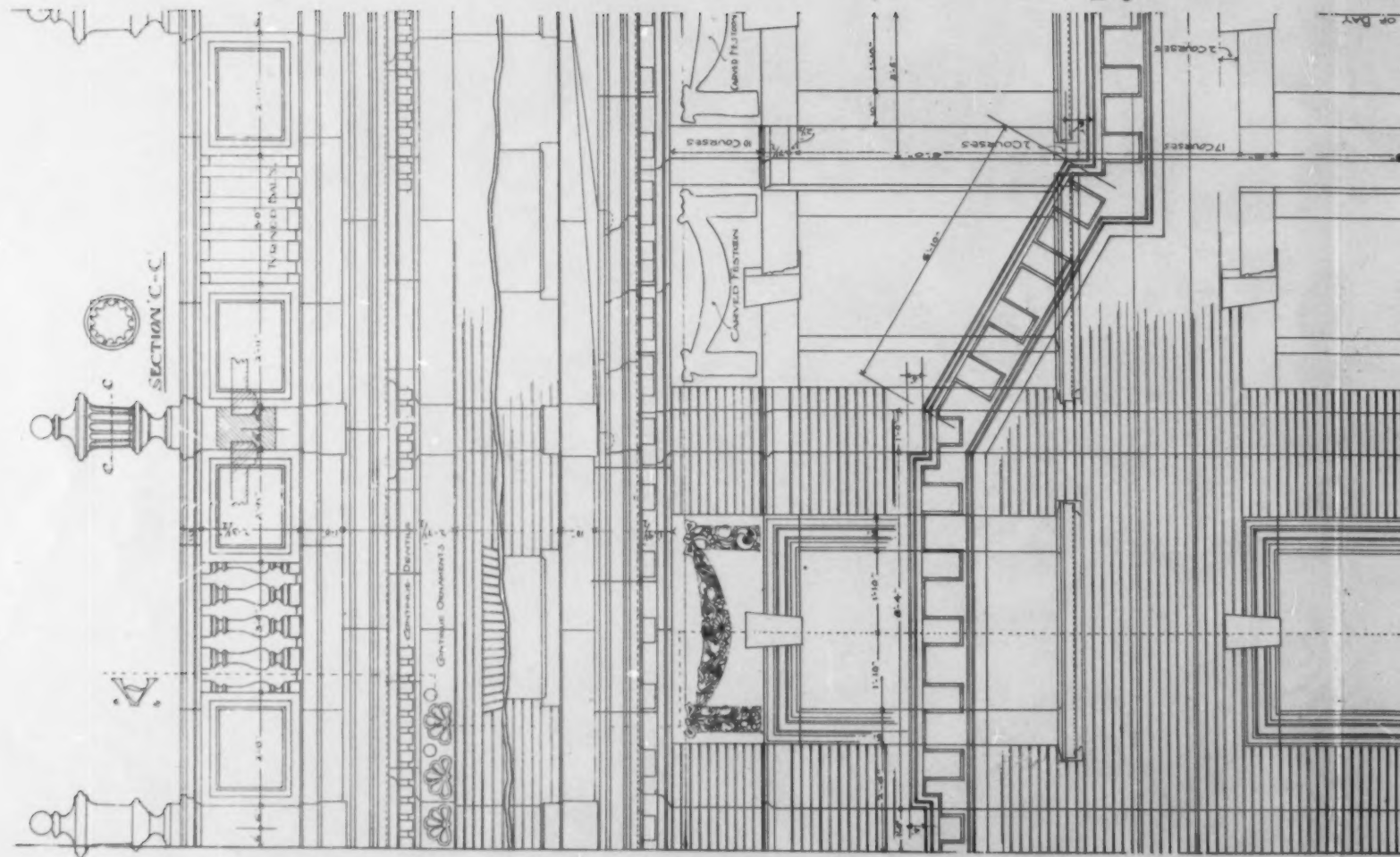




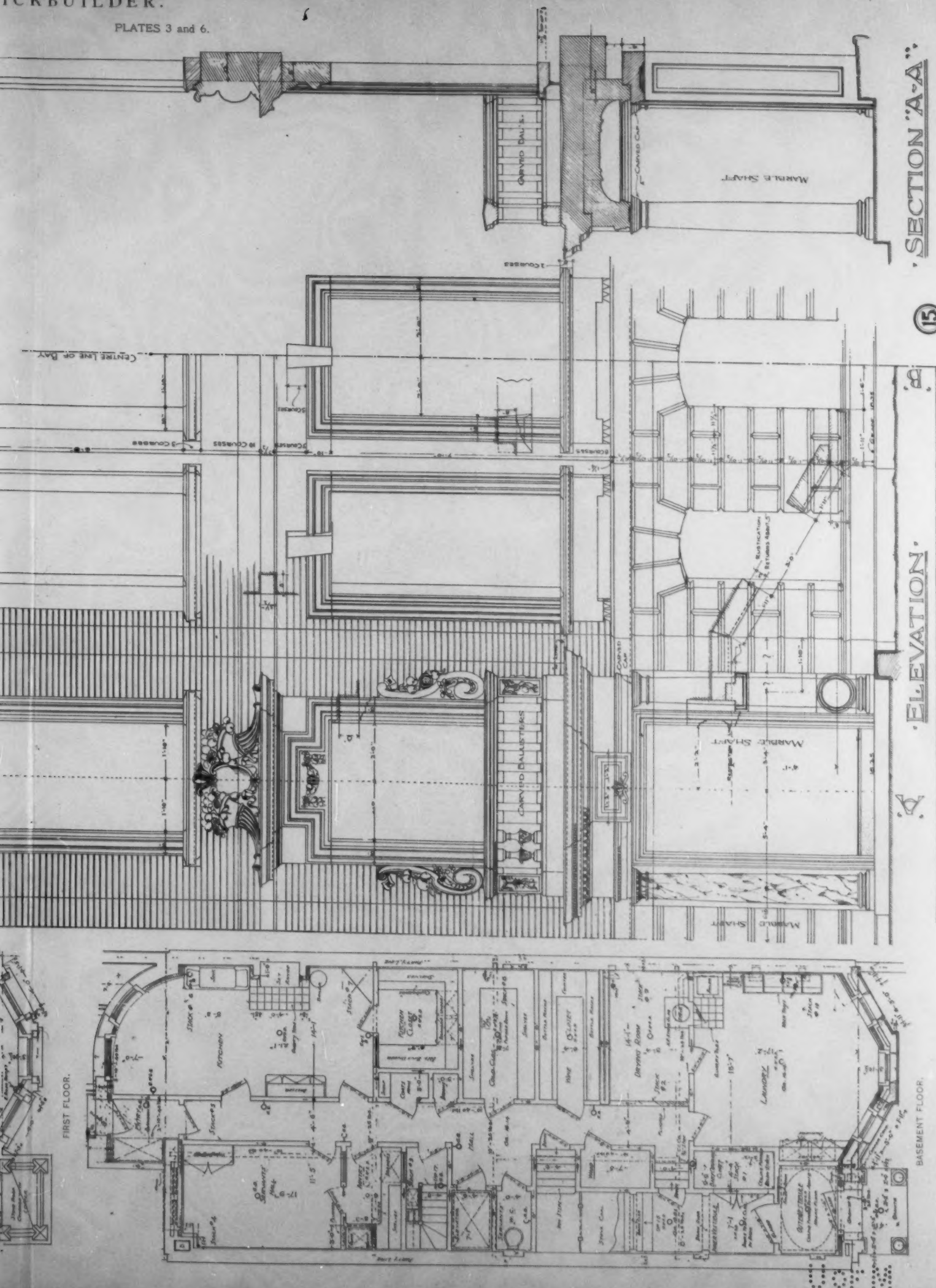
DETAIL OF FRONT ELEVATION.



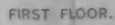
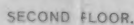
PLAN OF CORNICE
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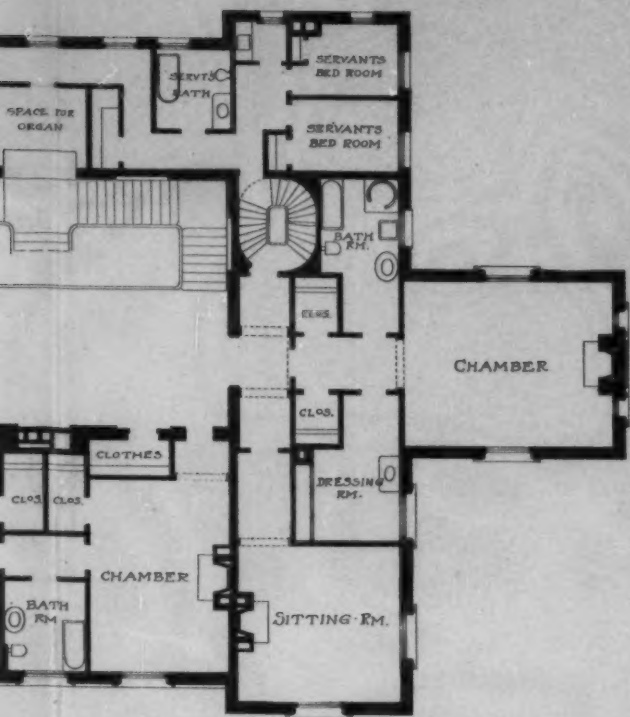


FIRST FLOOR.

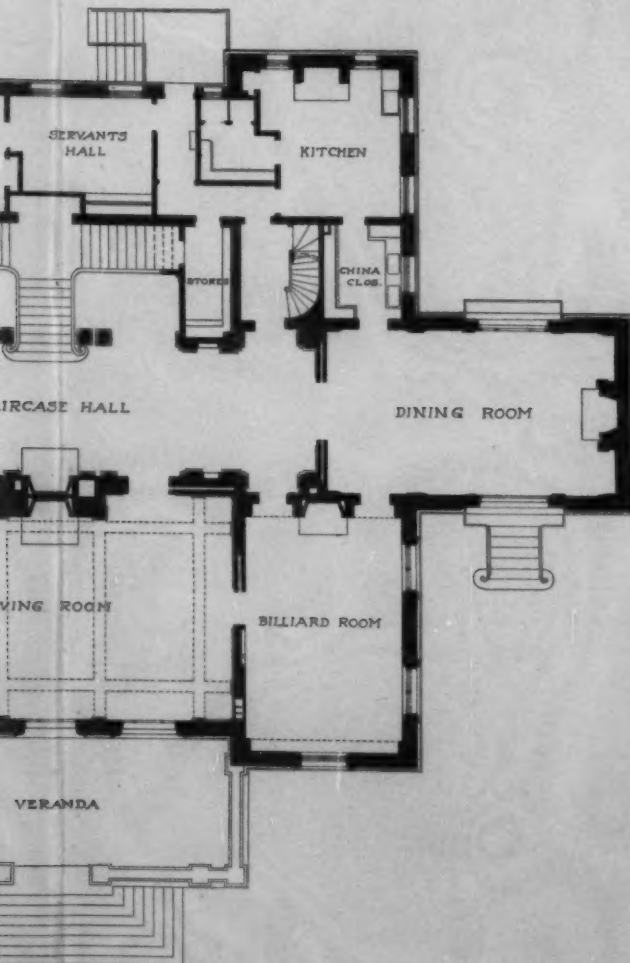


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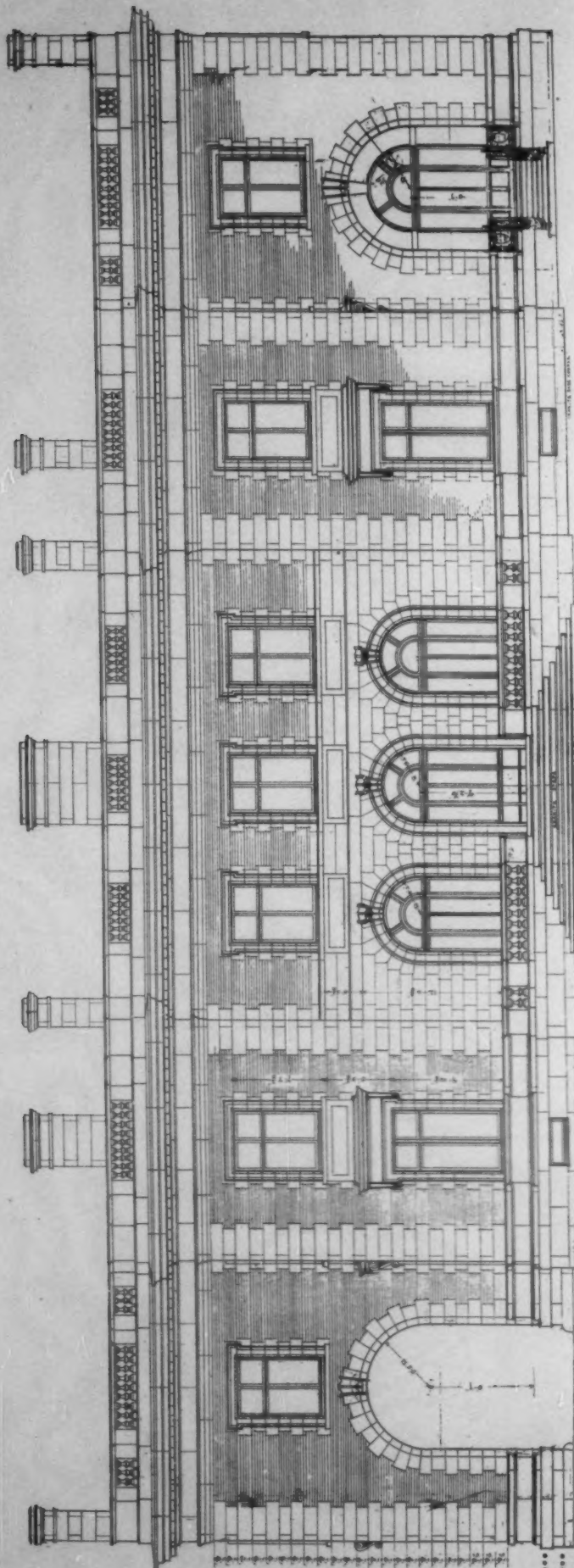




SECOND FLOOR.



FIRST FLOOR.



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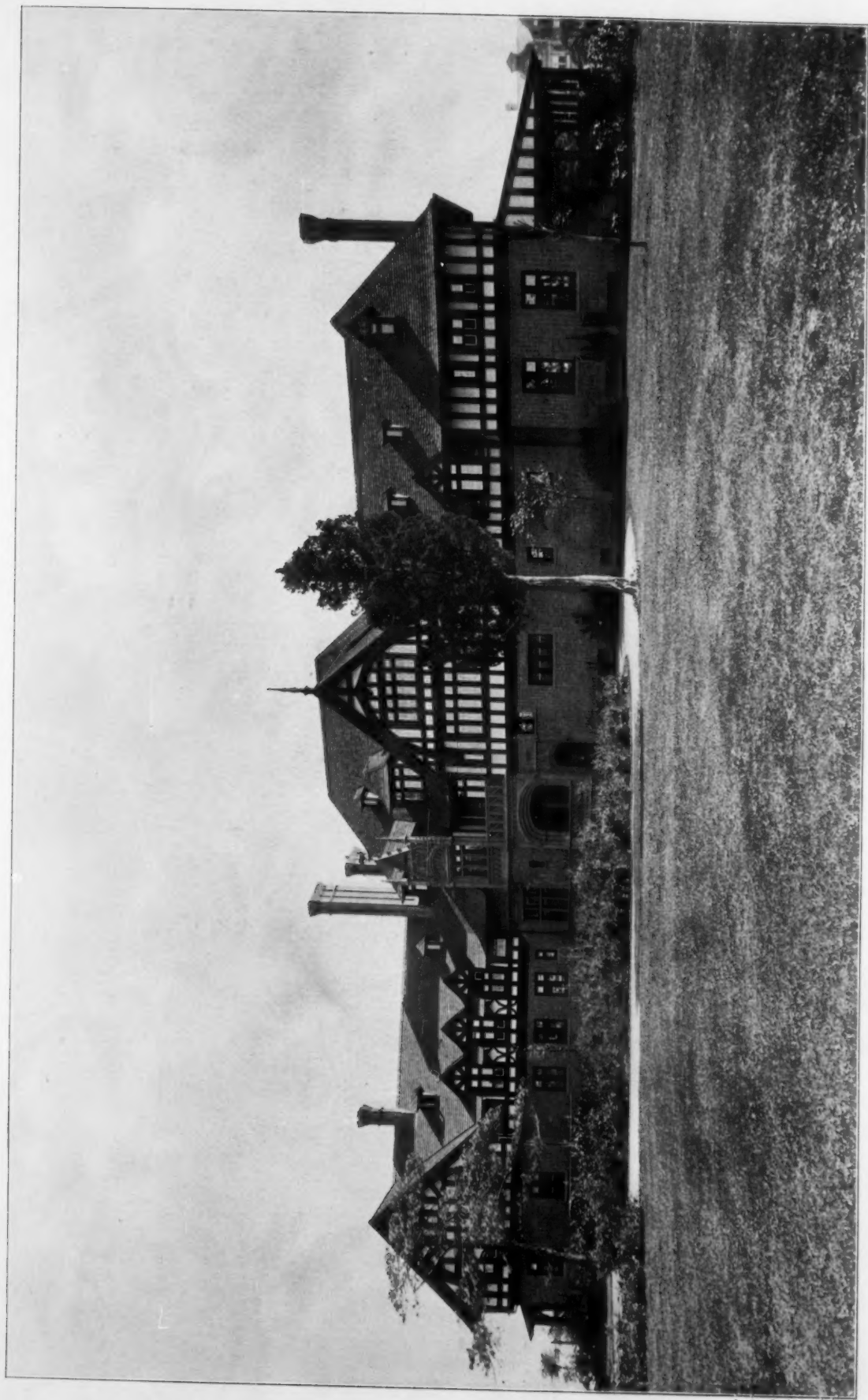
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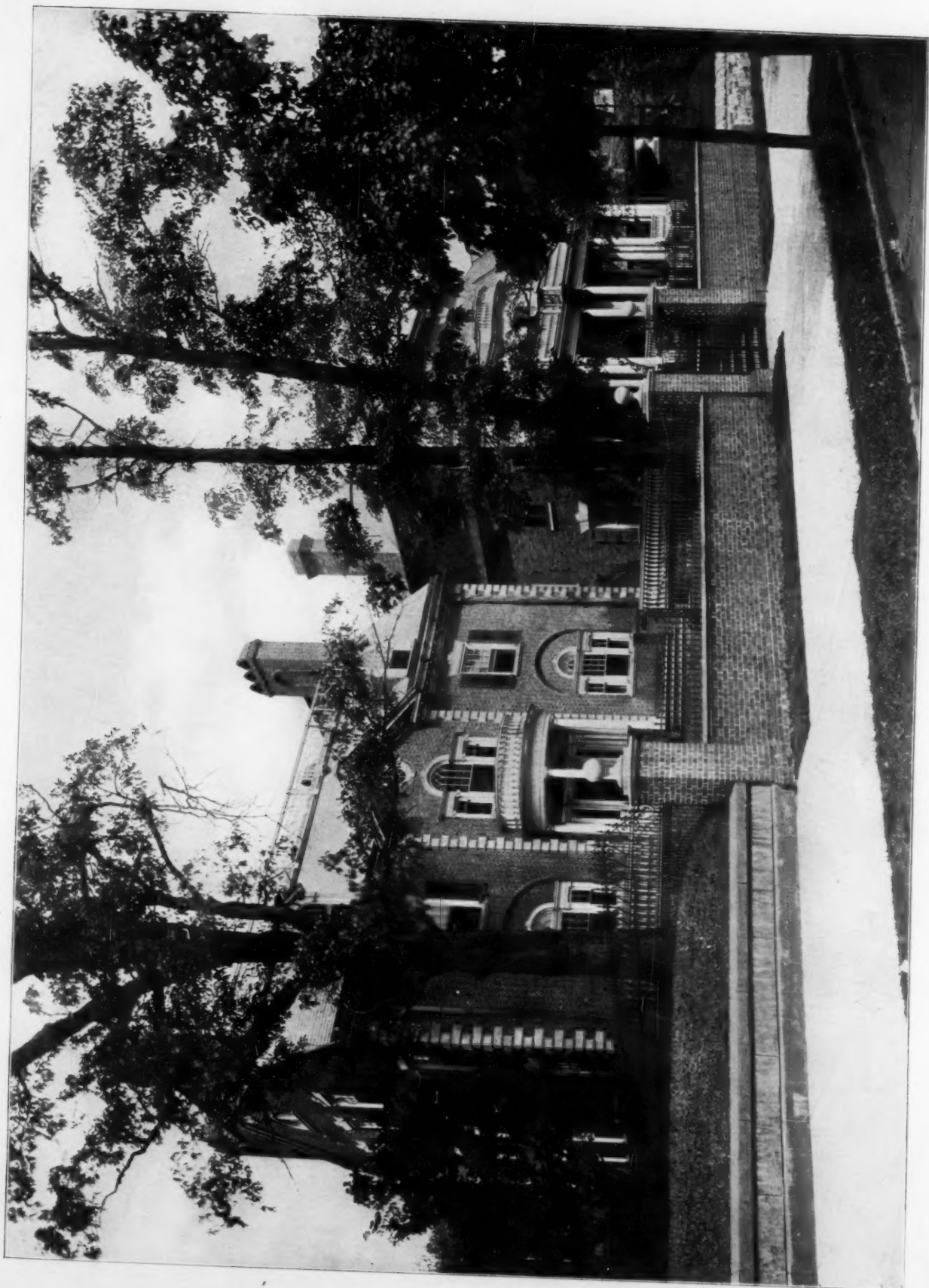
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